CLAIMS

What is claimed is:

1. A method of trading assets on a market, comprising the steps of:

   (a) receiving price data for an asset over one or more computer networks;

   5   (b) receiving current system position information;

   (c) storing said received asset price data and said current system position information in a computer-readable medium;

   (d) calculating trade recommendation information from each of one or more trading sub-models, wherein each sub-model is based on a different time horizon, said

   10   calculation based on said received asset price data; and

   (e) calculating a trade recommendation regarding said asset based on said trade recommendation information from each of said trading sub-models.

2. A method as in claim 1, wherein each sub-model has its own indicator.

3. A method as in claim 2, wherein three sub-models are used, and the centers of

   15 gravity of the past analyzed by the model indicators are of approximately one day, 4 days, and 16 days, measured in business time.

4. A method as in claim 2, wherein three sub-models are used, and centers of gravity of the past analyzed by the model indicators are of approximately 4 days, 15.6 days, and 61 days, measured in business time.

   20 5. A method as in claim 2, wherein the indicator is constructed from a short-term exponential moving average of a logarithmic middle price of the asset.

6. A method as in claim 5, wherein said indicator is normalized.

7. A method as in claim 5, wherein said exponential moving average is based on a business time scale.

   25 8. A method as in claim 1, wherein each sub-model comprises:

   (a) a price collector component;

(b) a price filter component;

(c) a price database component;

(d) a gearing calculator component;

(e) a deal acceptor component; and

5   (f) a book-keeper component.

9. A method as in claim 1, wherein the step of calculating a trade recommendation regarding said asset based on said trade recommendation information from each of said trading sub-models is performed by summing the weighted trade recommendations of the sub-models.

10   10. A method of trading assets on a market, comprising the steps of:

(a) receiving price data for an asset over one or more computer networks;

(b) receiving current system position information;

(c) storing said received asset price data and said current system position information in a computer-readable medium;

15   (d) calculating trade recommendation information from each of one or more trading sub-models, wherein each sub-model is based on a different time of day, said calculation based on said received asset price data;

(e) calculating a trade recommendation regarding said asset based on said trade recommendation information from each of said trading sub-models.

20   11. A method as in claim 10, wherein 24 sub-models are used.

12. A method as in claim 10, further comprising the step of evaluating the performance of said sub-models using a risk-sensitive performance measure.

13. A method as in claim 12, wherein said risk-sensitive performance measure is used to optimize the performance of the trading models.

25   14. A method as in claim 12, wherein said risk-sensitive performance measure is an effective return $(X_{eff,\Delta t})$.

15. A method as in claim 12, wherein said risk-sensitive performance measure is an effective effective return (fxf).

16. A method as in claim 10, wherein each sub-model further comprises a pair of sub-models, each pair consisting of a trend-following sub-model and a contrarian sub-model.

17. A method as in claim 10, wherein each sub-model comprises:

    (a) a price collector component;

    (b) a price filter component;

    (c) a price database component;

    (d) a gearing calculator component;

    (e) a deal acceptor component; and

    (f) a book-keeper component.

18. A method as in claim 10, wherein the step of calculating a trade recommendation regarding said asset based on said trade recommendation information from each of said trading sub-models is performed by summing the weighted trade recommendations of the sub-models.

19. A method as in claim 10, wherein the step of calculating a trade recommendation regarding said asset based on said trade recommendation information from each of said trading sub-models is performed by summing the weighted trade recommendations of N sub-models within the last T hours, where N and T are positive integers.

20. A method as in claim 10, wherein the step of calculating a trade recommendation regarding said asset based on said trade recommendation information from each of said trading sub-models is based on a ratio obtained by summing the weighted trade recommendations of N sub-models within the last T hours, where N and T are positive integers and dividing that sum by the total number of sub-models.

21. A method as in claim 16, wherein the step of calculating a trade recommendation regarding said asset based on said trade recommendation information from each of said trading sub-models is performed by summing the weighted trade recommendations of N sub-models within the last T hours, where N and T are positive integers, and wherein a non-neutral recommendation by a trend-following sub-model overrules a recommendation by the paired contrarian sub-model.

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22. A method as in claim 16, wherein the step of calculating a trade recommendation regarding said asset based on said trade recommendation information from each of said trading sub-models is performed by summing the weighted trade recommendations of N sub-models within the last T hours, where N and T are positive integers, and wherein a non-neutral recommendation by a contrarian sub-model overrules a recommendation by the paired trend-following sub-model.

23. A method as in claim 16, wherein the step of calculating a trade recommendation regarding said asset based on said trade recommendation information from each of said trading sub-models is based on a ratio obtained by summing the weighted trade recommendations of N sub-models within the last T hours, where N and T are positive integers and dividing that sum by the total number of sub-models, and wherein a non-neutral recommendation by a trend-following sub-model overrules a recommendation by the paired contrarian sub-model.

24. A method as in claim 16, wherein the step of calculating a trade recommendation regarding said asset based on said trade recommendation information from each of said trading sub-models is based on a ratio obtained by summing the weighted trade recommendations of N sub-models within the last T hours, where N and T are positive integers and dividing that sum by the total number of sub-models, and wherein a non-neutral recommendation by a contrarian sub-model overrules a recommendation by the paired trend-following sub-model.

25. A method as in claim 10, wherein each sub-model is based on a triplet comprising price change and volatility data calculated at regular intervals of a basic grid interval.

26. A method as in claim 25, wherein the volatility is measured as a mean of absolute log price change.

27. A method as in claim 26, wherein the mean is taken over the last M consecutive observations of log price change over the basic grid interval, where M is a positive integer.

28. A method of trading assets on a market, comprising the steps of:

(a) receiving price data for an asset over one or more computer networks;

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(b) receiving current system position information;

(c) storing said received asset price data and said current system position information in a computer-readable medium;

(d) calculating trade recommendation information from each of one or more trading sub-models, wherein each sub-model is based on the view and actions of one group of traders in the asset and is further based on its own time horizon, said calculation based on said received asset price data;

(e) calculating a trade recommendation regarding said asset based on said trade recommendation information from each of said trading sub-models.

29. A method as in claim 28, wherein each sub-model comprises:

(a) a price collector component;

(b) a price filter component;

(c) a price database component;

(d) a gearing calculator component;

(e) a deal acceptor component; and

(f) a book-keeper component.

30. A method as in claim 28, wherein the step of calculating a trade recommendation regarding said asset based on said trade recommendation information from each of said trading sub-models is performed by summing the weighted trade recommendations of the sub-models.

31. A method as in claim 28, wherein the step of calculating trade recommendation information from each of one or more trading sub-models comprises, for each sub-model, the following steps:

(a) calculating a suitable main indicator for the sub-model, which after application of a nonlinear discretization function provides a first raw gearing;

(b) calculating a frequency indicator;

(c) calculating a channel indicator;

(d) computing a weight to be applied to the raw gearing; and

(e) computing a final gearing by multiplying the weight times the raw gearing and then discretizing the product.

32. A method as in claim 31, wherein said weight is modulated by a spread function that accounts for the loss due to bid-ask spreads.

33. A method as in claim 31, wherein the step of calculating a trade recommendation regarding said asset based on said trade recommendation information from each of said trading sub-models is performed according to the following formula:

$$G_m = c \, \frac{1}{1 + \sum_{i=1}^{n} w_i} \sum_{i=1}^{n} g_{m,i}, \qquad (56)$$

where n is the total number of sub-models, $g_{m,i}$ is the trade recommendation of the ith sub-model, w_i is the weight for the ith sub-model, and c is a constant.